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DL NGL

NEXT GENERATION LABS

DL NGL-AI

Module for the study of artificial intelligence

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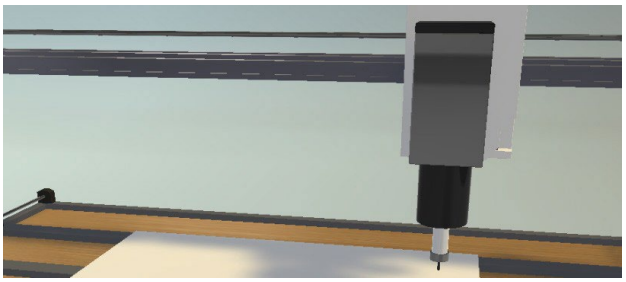
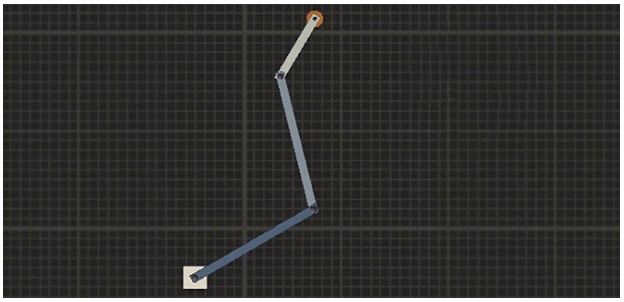
Artificial intelligence is a discipline that studies whether and how intelligent computer systems capable of simulating the ability and behaviour of human thought can be created.

It belongs to computer science, which studies the theoretical foundations, methodologies and techniques that allow the design of hardware and software systems capable of providing the computer with performances that would appear to be the exclusive pertinence of human intelligence.

The 'Artificial Intelligence' Module adds to the Basic Module the tools for studying and learning about topics related to AI.

It is composed of a software that has been developed to teach artificial intelligence clearly and effectively. With this software, students can enhance their individual experience in the practical study of this new discipline.





Teachers can offer students experiments on the following topics:

- Optimization: Using the genetic algorithm to solve optimization problems, such as the time problem or the cost problem.
- Classification: Using neural networks to solve classification problems.
- Reinforcement Learning: Using reinforcement learning to train a robot to reach a specific location.
- Regression: Comparing the performance of decision tree and neural network algorithms in system modelling and predictions.

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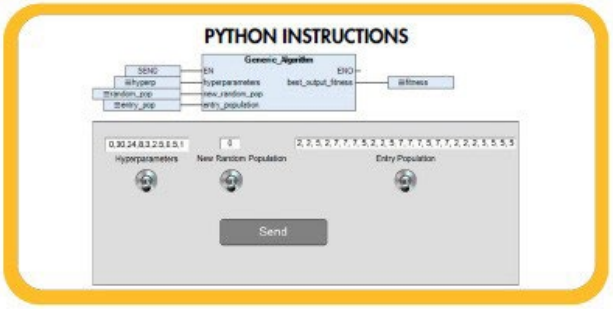
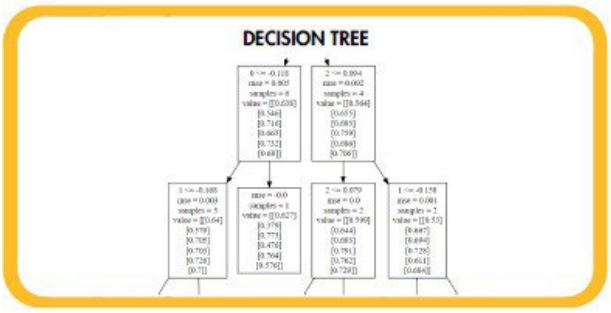
The software contains simulations of industrial environments in 3D and includes integrated projects with activities, instructions, contents and automatic validation.

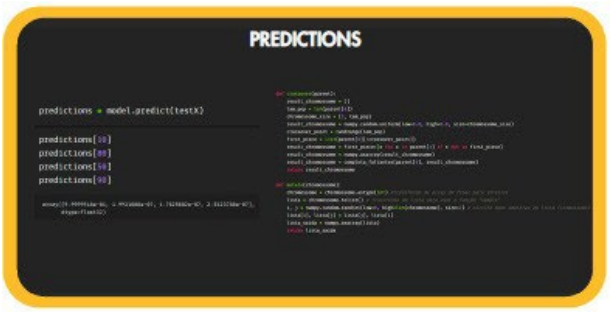
All projects have well-defined goals. They are structured in activities and each activity has specific requirements and provides students with instruction, content and guidance.

The software itself checks the student's solution to each activity in real time and allows him to move on to the next activity.

It works integrated with an IDE (Integrated Development Environment, i.e., a software that, in the programming phase, supports programmers in the development and debugging of the source code of a program) Python.







NEXT GENERATION LABS

The DL NGL-AI module can be integrated in the NEXT GENERATION LAB - DL NGL laboratory through the minimum purchase of the following modules:

- **Teacher Station - DL NGL-BASE**
  Necessary for the proper functioning of the laboratory. Quantity: 1.

- **Student Station - DL NGL-STUDENT**
  To be multiplied by the number of "student stations" to be created.